



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/989,479

11/20/2001

Todd D. Graham

1048-024

1151

80360 7590 03/30/2009
Bainwood, Huang & Associates, LLC
2 Connector Road
Westborough, MA 01581

EXAMINER

CHANKONG, DOHM

ART UNIT

PAPER NUMBER

2452

MAIL DATE

DELIVERY MODE

03/30/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/989,479	Applicant(s) GRAHAM ET AL.	
	Examiner DOHM CHANKONG	Art Unit 2452	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20-24 is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2452

DETAILED ACTION

1. This action is in response to Applicant's request for continued examination. Claims 1 and 9 are amended. Claims 20-24 are added. Accordingly, claims 1-24 are presented for further examination.

2. This action is a non-final rejection.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/9/2009 has been entered.

Response to Arguments

4. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

5. Claims 20-23 are allowed. Claim 24 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 24 lacks proper antecedent basis for “the clock time.”

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabne et al. (U.S. Patent Number 6,006,332), hereinafter referred to as Rabne, in view of O’Brien et al, U.S.

Art Unit: 2452

Patent No. 6.658.571 ["O'Brien"], further in view of Leveridge et al, U.S. Patent No. 7.233.997 ["Leveridge"].

8. Rabne disclosed a system for controlling access to and protecting use of digitized data utilizing a secure rights management server. In an analogous art, O'Brien is directed towards a security framework utilizing kernel-based security modules to protect file systems by controlling access to and protecting use of computer files. Also in an analogous art, Leveridge is directed to a system for rights-based access to a network file system.

9. Concerning claims 1 and 9, Rabne did not explicitly state a client module configured to interface to a client operating system kernel and configured to enforce a set of usage rights within the operating system kernel without application rewrites, wherein enforcing the set of usage rights includes: intercepting a system call between an application and the client OS, evaluating the system call based on the set of usage rights, and blocking or modifying the system call based on said evaluation. However, allowing a system to enforce access rights in an operating system kernel by intercepting system calls and evaluating the system call based on the access rights was a well known feature in the art as evidenced by O'Brien whose system uses a security mechanism at the operating system level to determine usage rights for users or processes. Further, as discussed above, the limitation "without application rewrites" is merely an effect of performing the enforcement within the OS kernel. Thus, since O'Brien discloses enforcing usage rights at the OS level, O'Brien implicitly teaches the limitation. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify

Art Unit: 2452

the system of Rabne by adding the ability to use a client module configured to interface to a client operating system kernel and configured to enforce a set of usage rights within the operating system kernel by intercepting system calls and evaluating the system calls based on the set of usage rights as provided by O'Brien. Here the combination satisfies the need for a system to control and monitor the access and use of restricted content on a network. See Rabne, column 3, lines 32-38. Additionally, O'Brien's kernel level enforcement provide more protection than traditional security routines [see O'Brien, column 3 «lines 61-64»].

10. Also concerning claims 1 and 9, the combination of Rabne and O'Brien did not explicitly state obtaining the content on an individual block basis and related limitations. Rabne, who teaches the distribution of intellectual property over a network, is not specific on how this content is transferred; for example Rabne is not specific as to whether it is transferred on an individual block basis. However, obtaining content comprising data blocks from content sources on an individual block basis is well known in the art as evidenced by Leveridge whose system transmits content on an individual block basis based on access policies associated with a user [column 6 «lines 20-25» | column 14 «lines 47-60»]. Leveridge further discloses wherein selectively obtaining content comprising data blocks includes: obtaining data blocks from said content sources, each data block being of a fixed preconfigured size [Fig. 14], said fixed preconfigured size being associated with said content and stored on said content sources and obtaining the fixed preconfigured size associated with said content from said content sources [column 14 «lines 47-60»].

Art Unit: 2452

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Rabne and O'Brien by adding the ability to obtain content on an individual block basis (of a fixed preconfigured size) as well as the access policies that comprise predefined usage policies associated with the content for the user as provided by Leveridge. Obtaining content on an individual block basis allows each block to be encrypted which would increase Rabne's content distribution system [see *Leveridge*, column 14 «lines 4-19»]. Modifying Rabne's content distribution system to include such functionality is merely an example of using a known technique (Leveridge's individual block delivery in a content distribution system) to improve similar devices (Rabne's content distribution system) in the same way. *See MPEP § 2143.*

11. All citations are to Rabne unless otherwise noted. Some claims will be discussed together. Those claims which are essentially the same except that they set forth the claimed invention as a method are rejected under the same rationale applied to the described claim.

12. Thereby, the combination of Rabne, O'Brien, and Taylor discloses:

- <Claims 1 and 9>

A dynamic file access control and management system configured to access one or more content sources including a set of content, said system comprising:

A. a proxy system linked to said one or more content sources, said proxy system comprising an access control module configured to selectively obtain content comprising data blocks from said content sources on an individual block basis as a function of an

Art Unit: 2452

authorization of a user requesting said content and a set of access policies (*Leveridge*, column 6 «lines 20-25» | column 14 «lines 47-60»)) that comprise a set of predefined usage policies associated with the content for said user (column 8, lines 11-14 and 34-37 – Rabne’s license agreement reads on Applicant’s claimed usage policy);

B. a rights management module configured to generate a set of usage rights associated with said content as a function of a set of predefined usage policies associated with said content for said user (column 8, lines 11-37 – permissions rights generated from the license agreement);

C. at least one client device having a client module configured to interface to a client operating system kernel, said client module configured to enforce the set of usage rights within the operating system kernel without application rewrites (column 6, lines 31-45 and *O’Brien*, column 3 «lines 39-55» : O’Brien’s kernel-level security modules apply security policies by granting or denying access to resources), wherein enforcing the set of usage rights includes:

intercepting a system call between an application and the client OS

[*O’Brien*, column 5 «lines 28-36» | column 7 «lines 10-12»];

evaluating the system call based on the set of usage rights [*O’Brien*, column 5 «lines 56-66» | column 7 «lines 27-40»]; and

blocking or modifying the system call based on said evaluation [*O’Brien*, column 5 «line 67» to column 6 «line 4» | column 7 «lines 41-48»];

D. one or more communication means, via which said content and said usage rights are provided to said client device (column 3, lines 52-59);

wherein selectively obtaining content comprising data blocks from said content sources on an individual block basis includes: obtaining data blocks from said content sources, each data block being of a fixed preconfigured size [*Leveridge*, Fig. 14], said fixed preconfigured size being associated with said content and stored on said content sources and obtaining the fixed preconfigured size associated with said content from said content sources [*Leveridge*, column 14 «lines 47-60»].

- <Claims 2 and 10>

The system according to claim 1, wherein said content and said usage rights are provided to said client device via different communication means (column 10, lines 34-48).

- <Claims 3 and 11>

The system according to claim 1, wherein said content includes static content (column 6, lines 53-60).

- <Claims 4 and 12>

The system according to claim 1, wherein said content includes dynamic content (column 6, lines 53-60).

- <Claims 5 and 13>

The system according to claim 1, wherein said communication means includes a secure transform configured to encrypt and encapsulate said content into a message as a function of a session ID and said client is configured to extract said content from said message (column 7, lines 10-19).

- <Claims 6 and 14>

Art Unit: 2452

The system according to claim 1, wherein said proxy system further includes a user interface, configured to facilitate creation and editing of said access policies and said usage policies and association of said access policies and said usage policies with said content (column 18, lines 20-32 and 50-67).

- <Claims 7 and 15>

The system as in claim 1, wherein said client device is a device from a group comprising: 1) a personal computer; 2) a workstation; 3) a personal digital assistant; 4) an e-mail device; 5) a cellular telephone; 6) a Web enabled appliance; and 7) a server (column 6, lines 31-45).

- <Claims 8 and 16>

The system of claim 1, wherein said proxy system and at least one of said content sources are hosted on the same computing device (figure 1b, item 22).

Since the combination of Rabne, O'Brien, and Leveridge discloses all of the above limitations, claims 1-16 are rejected.

13. Claims 17 and 19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Rabne, O'Brien, and Leveridge as applied to claims 1-16 above, in further view of Holden et al, U.S. Patent No. 5,802,178 ["Holden"].

14. With respect to claims 17 and 19, Rabne as modified by O'Brien and Taylor does not expressly disclose the access control module of the proxy system further configured to encrypt each data block of the content independently, using a unique initialization vector for each data

Art Unit: 2452

block and one or more encryption/decryption keys and wherein the one or more communication means also provide the one or more encryption decryption keys to said client device. However, these features were well known in the art at the time of Applicant's invention as evidenced by Holden. Like Rabne, Holden is directed to a system providing security system policies that regulate access control [column 5 «lines 33-52»]. Within this system, Holden discloses encrypting each data block of the content independently, using a unique initialization vector for each data block and one or more encryption/decryption keys [column 16 «line 64» to column 17 «line 10»], and providing the one or more encryption/decryption keys to a client [column 10 «lines 17-28» | column 19 «lines 9-12»: sharing an association key with other computers to be used in decrypting the encrypted data block]. Holden's SNIU reads on the claimed access control module. It would have been obvious to one of ordinary skill in the art to have modified Rabne with the encryption functionality taught in Holden. One would have been motivated to have so modified Rabne because Holden's encryption features provide greater security benefits to Rabne's system [see Holden, column 3 «lines 18-25»].

15. Thereby, the combination of Rabne, O'Brien, Leveridge, and Holden discloses:

- «Claims 17 and 19»

The system according to claim 1:

wherein the access control module is further configured to encrypt each data block of the content independently, using a unique initialization vector for each data block and one or more encryption/decryption keys [*Holden*, column 16 «line 64» to column 17 «line 10»]; and

Art Unit: 2452

wherein the one or more communication means also provide the one or more encryption decryption keys to said client device [*Holden*, column 10 «lines 17-28» | column 19 «lines 9-12»: sharing an association key with other computers to be used in decrypting the encrypted data block].

16. Claim 18 is rejected under 35 U.S.C. §103(a) as being unpatentable over Rabne, O'Brien, and Leveridge as applied to claims 1-16 above, in further view of Shaath et al, U.S. Patent No. 7,392,234 [“Shaath”].

17. As to claim 18, Rabne as modified by O'Brien and Taylor does not disclose each content source stores a plurality of directories, at least one director including a plurality of content files and a metafile, wherein the metafile stores a plurality of records, each record corresponding to one of the plurality of content files within that directory, each record storing the set of predefined usage policies associated with the corresponding content file as evidenced by Shaath. Like Rabne, Shaath is directed towards a system for enforcing usage rights on content files [column 5 «line 67» to column 6 «line 11»]. Shaath discloses content source stores a plurality of directories [column 5 «lines 44-54»], at least one director including a plurality of content files and a metafile [column 5 «lines 55-61»: Shaath's policy reads on the claimed metafile | column 12 «lines 13-21»], wherein the metafile stores a plurality of records, each record corresponding to one of the plurality of content files within that directory, each record storing the set of predefined usage policies associated with the corresponding content file [column 11 «lines 23-30» | column 12 «line 13» to column 13 «line 28»]. It would have been obvious to one of ordinary skill in the

Art Unit: 2452

art to have modified Rabne's system to include Shaath's directory-based policy enforcement.

Rabne's system would be improved by implementing Shaath's teaching because it allows for a hierarchical and automated application of file lifecycle policies [column 5 «lines 44-48» | column 6 «lines 12-17»].

18. Thereby, the combination of Rabne, O'Brien, Leveridge and Shaath discloses:

- «Claim 18»

The system according to claim 1, wherein each content source stores a plurality of directories [column 5 «lines 44-54»], at least one director including a plurality of content files and a metafile [column 5 «lines 55-61»: Shaath's policy reads on the claimed metafile | column 12 «lines 13-21»], wherein the metafile stores a plurality of records, each record corresponding to one of the plurality of content files within that directory, each record storing the set of predefined usage policies associated with the corresponding content file [column 11 «lines 23-30» | column 12 «line 13» to column 13 «line 28»].

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Nuttall, U.S. Patent No. 6.202.056;

Schmeidler et al, U.S. Patent No. 6.763.370;

Elgressy et al, U.S. Patent No. 7.383.569.

Art Unit: 2452

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOHM CHANKONG whose telephone number is (571)272-3942. The examiner can normally be reached on Monday-Friday [8:30 AM to 4:30 PM].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571.272.3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dohm Chankong/
Examiner, Art Unit 2452